



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,080	01/13/2004	C.P. Kelkar	4836B	3114

7590 04/26/2005

The Law Office of Stuart D. Frenkel, P.C.
Suite 330
3975 University Drive
Fairfax, VA 22030

EXAMINER

WOOD, ELIZABETH D

ART UNIT	PAPER NUMBER
----------	--------------

1755

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/756,080

Applicant(s)

KELKAR ET AL.

Examiner

Elizabeth D. Wood

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 14, 17-21 and 30-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14, 17-21 and 30-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/13/04, 3/18/04, 2/27/04
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Specification

The examiner has not checked the specification to the extent necessary to determine the presence of **all** possible minor errors (grammatical, typographical and idiomatic). Cooperation of the applicant(s) is requested in correcting any errors of which applicant(s) may become aware of in the specification, in the claims and in any future amendment(s) that applicant(s) may file.

Applicant(s) is also requested to complete the status of any copending applications referred to in the specification by their Attorney Docket Number or Application Serial Number, **if any**.

The status of the parent application(s) and/or any other application(s) cross-referenced to this application, if any, should be updated in a timely manner.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
The full name of each inventor (family name and at least one given name together with any initial) has not been set forth.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 1755

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-10, 14, 17-21 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,686,204 to Mester et al.

The instantly claimed invention involves a NO_x removal composition consisting essentially of a support, cerium oxide, at least one oxide of a lanthanide series element other than cerium oxide, and optionally a Group Ib or IIb transition metal oxide, wherein the ratio of cerium oxide to the other lanthanide series oxide is at least 1.66:1 by weight. This composition can be combined with an FCC catalyst.

Mester et al. disclose NO_x removal compositions comprising alumina or silica-alumina support material, cerium oxide, other lanthanide oxides, optionally metal oxides such as zinc and copper, and the material can implicitly be used in combination with an FCC catalyst since they catalyst and the sorbent would be expected to operate together in an FCC unit. See particularly columns 6-8 and the examples, particularly Table 2.

The only substantive difference between Mester et al. and the instantly claimed invention would be the failure of the reference to specifically recite that the ratio of the cerium oxide to the lanthanide oxides is at least 1.66:1 by weight. However, the instant claims would have been obvious because the amounts employed by Mester et al. result in ratios of greater than 1.66:1, for example in examples 7-9. As a result, Mester et al. are considered to render the instantly claimed invention obvious.

Regarding applicants' claim language of "consisting essentially of", it is pointed out that this is not language that is closed to any substances that will not affect the basic and novel characteristics of the composition. In the instant situation, the claims are not closed to any of the substances employed by Mester et al. because the reference also creates a catalyst for use in an FCC system. As the composition functions effectively for its purpose, it can only be concluded that the additional components do not affect the composition, absent some convincing showing of evidence to the contrary.

Regarding limitations such as the source of the silica-alumina, it is pointed out that the claims recite well known methods for making silica-alumina and they are fairly shown by the prior art of record. Any known method of obtaining a necessary support material would have been within the skill of the artisan.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10, 14, 17-21 and 30-33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of U.S. Patent No. 6,800,586. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ from one another only in the scope of coverage being sought. For example, a Group Ib or IIb metal oxide is optional in the instant claims, but required in the patented claims. The instant claims employ the language "consisting essentially of", but they would not exclude any substances claimed in the patent since the two compositions are directed to substantially the same inventive composition.

Claims 1-10, 14, 17-21 and 30-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10, 12, 13 and 15-25 of copending Application No. 10/268,256 or claims 1-16 of copending Application No. 10/763,812. Although the conflicting claims are not

Art Unit: 1755

identical, they are not patentably distinct from each other because they differ from one another only in the scope of coverage being sought. For example, the instant claims employ the language "consisting essentially of", but this would not exclude the required precious metal of the '256 copending claims or the zirconium of the '812 claims since each of the substances have the same utility (i.e. additional metals would not affect the basic and novel characteristics of the composition). Accordingly, the compositions are directed to substantially the same inventive composition. The ratio of cerium oxide to other lanthanide oxide in the copending claims is completely embraced by the ratio recited in the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

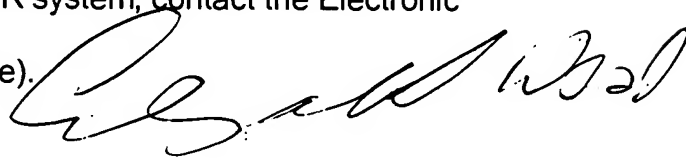
Applicants are advised that any evidence to be provided under 37 CFR 1.131 or 1.132 and any amendments to the claims and specification should be submitted prior to final rejection to be considered timely. It is anticipated that the next office action will be a final rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth D. Wood whose telephone number is 571-272-1377. The examiner can normally be reached on M-F, 5:30-2:00.

Art Unit: 1755

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Elizabeth D. Wood', is written over the end of the previous paragraph.

Elizabeth D. Wood
Primary Examiner
Art Unit 1755

edw